

**ECR#: P26**

**Tracker #: 33**

**Status: Ratified**

**Title: Clarification of Keep-out Zone C and Processor Layout Suggestions**

**Release Date: March 1999**

**Impact, Medium: Clarification to the specification**

**Spec. Version: NLX Motherboard Specification V1.2**

**Summary:**

Clarify the text that describes the optional keep-out zone C to clearly indicate that .700 inches is the maximum height of motherboard components in that zone. Modify the figure that shows the processor module recommended locations to accurately correspond to keep-out zones.

See ECR# P23 for a modified Figure 3.15 (now two figures) and additional text in Section 3.8.1.

**Background:**

The “processor module recommended locations” inaccurately indicate that the processor can be located within optional keep-out zone C, which is limited to a maximum component height of .700 inches. This inaccuracy has allowed motherboard designers to place the Slot 1 connector and retention module within this keep-out zone, which could cause interference between the processor, retention mechanism, and add-in cards in the bottom two slots.

**Change the Current Specification as Shown:**

*In Section 3.6, **replace** the existing text with the following paragraph, and **remove** Figure 3.13 from the specification. (See the NLX Chassis Design Suggestions document for information on component locations and thermal considerations.)*

**3.6 Processor**

The exact location of the processor is not specified. Ideally, the processor should be located to the left of the I/O cards and toward the front of the motherboard. The exact location will be dictated by the core logic placement requirements. For the system to support full-length add-in cards, the maximum component height should be .700 inches in this area. Refer to Figure 3.15 and Section 3.8 to determine proper placement based on motherboard height restrictions.”

*In Section 3.8.4, **replace** the existing text with the following:*

**3.8.4 Motherboard Primary Component Height Constraints Right Side Mid to Front**

Chassis/system designers should assume that a height keep-out restriction of 2.800 inches exists in the right side mid-to-front section of the motherboard (zone C). Motherboard designers should assume that a height keep-in restriction of .700 inches exists for components placed in this area. This restriction includes processors and associated retention mechanisms. It is not an absolute restriction, although encroachment into this area by either motherboard components or chassis/system features would restrict the bottom two expansion slots to half-length add-in cards.